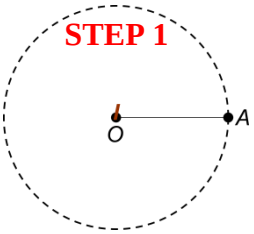
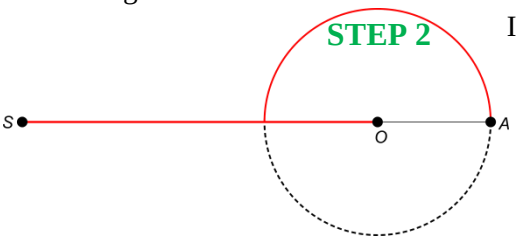
HOW TO SQUARE THE CIRCLE! **Please tag your photos and videos #WESTC**

We use unmarked ropes and pegs. We do *not* use compass and straight edge. (*That's impossible!*)

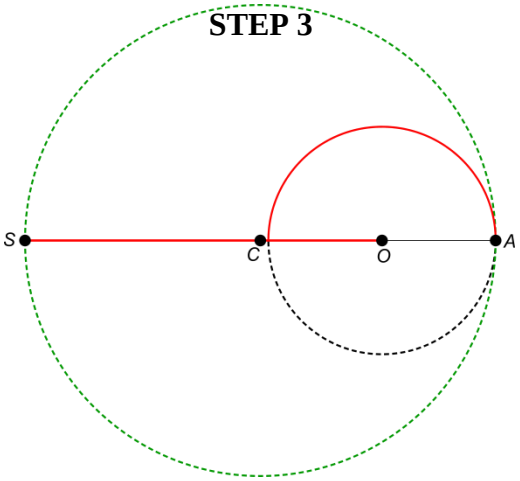
When a black dot • appears in a diagram, hammer a peg into the ground!



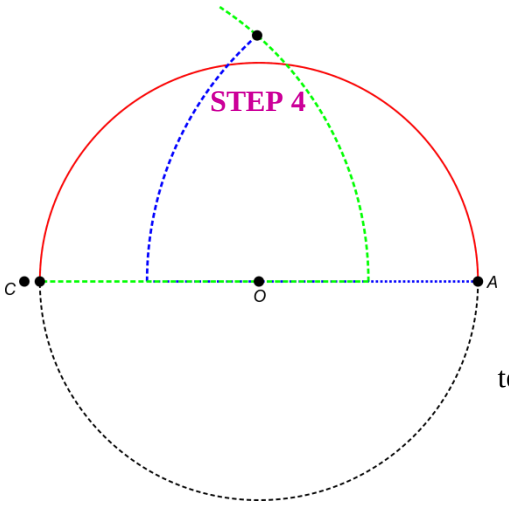
In **STEP 1** ← a pegged rope is rotated around *O* to draw a circle. The radius, (*r*), is the arbitrary unit of length *OA*.



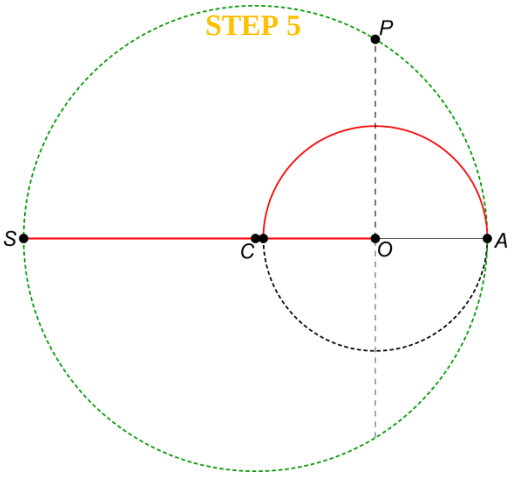
In **STEP 2** ← a rope (shown in red) is laid on the top half of the circumference and cut, (or pinched and held). This rope is then extended leftward from *O*. We now have pegs at *A*, *O* and *S*.



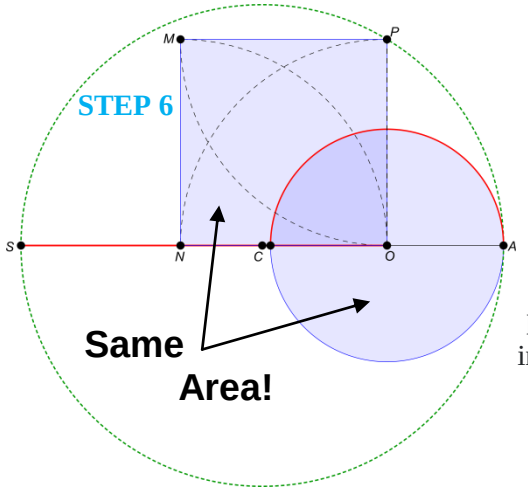
In **STEP 3** → we bisect *SA* at *C* and place a fixed peg at *C*. (A length of rope is easy to bisect!) With a rope pegged at *C*, with length *SC*, we draw a circle around *C*, (shown in green dashes).



In **STEP 4** ← a perpendicular line is found from *O*. To do this, simply rotate the same length of rope about each end of the diameter of the circle we are squaring. The point where the two arcs intersect gives us a temporary reference point for our perpendicular line from *O*.



In **STEP 5** → a peg point is made at *P*, where the perpendicular from *O* meets the green outer circle. A 'master rope' of length *OP* is created, shown as the dashed line from *O* to *P*. This is the first side of our desired square.



In **STEP 6** ← the master rope, *OP*, is swung around *O*, (anti-clockwise), to create the peg point *N*. Then the master rope is swung around peg point N, then peg point *P*, to create intersecting arcs at peg point M. Ropes pegged around *OPMN* then produce a square with the same area as our initial circle. ***Behold! The circle is squared!***

Resources www.bit.ly/squaring-the-circle
Here you will find free downloads, more beach mathematics ideas and photos, a **published proof of the method** and the chance to ask questions and share your circle squaring experiences. **Hashtag** #WESTC (WE Squared The Circle!)

THANK YOU!

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